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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/668,242

09/22/2000

Jill M. Boyce

Boyce 6-2

9862

7590

06/01/2005

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EXAMINER

LY, ANH VU H

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/668,242

Applicant(s)

BOYCE ET AL.

Examiner

Anh-Vu H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 04, 2005 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to amended claims 1, 16, 24, and 38, the specification does not describe nor support the steps of receiving and forwarding payload error information at the time the application was filed.

Claims 2-15, 17-23, 25-37, and 39-44 are rejected because they depend upon rejected independent claims 1, 16, 24, and 38.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-2, 4, 15-17, 19, 23-25, 27, 38-39, and 41 are rejected under 35 U.S.C. 102(a) as being anticipated by Larzon, Lars-Ake et al. "Efficient Use of Wireless Bandwidth for Multimedia Applications". Mobile Multimedia Communications. 1999 IEEE International Workshop on 15-17 Nov. 1999, pages 187-193.

With respect to claims 1, 16, 24, and 38, Larzon discloses on page 191, 2<sup>nd</sup> col., that errors in the insensitive parts of a packet (herein, the packet includes multimedia data and payload error information) were forwarded to the receiving application (forwarding to a higher layer) with a modified checksum (payload error information) so that they would not be detected as damaged packets by the UDP layer at the receiving host (receiving payload error information with multimedia data from RLP layer).

With respect to claims 2, 17, 25, and 39, Larzon discloses on page 191, 2<sup>nd</sup> col., that errors in the insensitive parts of a packet were forwarded to the receiving application with a modified checksum (a set of logical transmission unit error indicators) so that they would not be detected as damaged packets by the UDP layer at the receiving host.

With respect to claims 4, 19, 27, and 41, Larzon discloses on page 188, 1<sup>st</sup> col., that UDP Lite protocol provides an optionally partial checksum (CRC), which covers sensitive headers (performing a packet header CRC).

With respect to claims 15 and 23, Larzon discloses on page 189 that the Length field can be adjusted to be included in the checksum calculation (UDP layer specifies additional packet handling procedures in accordance with a complete UDP).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-12, 20, 31-35, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larzon, Lars-Ake et al. "Efficient Use of Wireless Bandwidth for Multimedia Applications". Mobile Multimedia Communications. 1999 IEEE International Workshop on 15-17 Nov. 1999, pages 187-193 in view of Dillon et al (US Patent No. 6,430,233). Hereinafter, referred to as Larzon and Dillon.

With respect to claims 8-12, 20, 31-35, 42, Larzon discloses (see Abstract) UDP Lite for increasing the flexibility of UDP by providing an optionally partial checksum. Larzon does not disclose multimedia data has been encoded using Maximal Distance Separable codes. Dillon

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discloses (col. 15, lines 30-60) that MDS codes are used in applications data (Figs. 14-15).

These codes consist of a binary array such that each packet is placed as one column, and the number of rows gives the length of the code in terms of packets. These codes are often MDS, which implies that  $r$  redundant parity packets can correct  $r$  erasures. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of encoding multimedia data with MDS codes in Larzon's system, as suggested by Dillon, since MDS coding can be effectively correct  $r$  erasures based on  $r$  redundant parity packets.

***Allowable Subject Matter***

5. Claims 3, 5-7, 13-14, 18, 21-22, 26, 28-30, 36-37, 40, and 43-44, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments filed March 04, 2005 have been fully considered but they are not persuasive.

Applicant argues on page 12 that according to page 3, lines 33-34 and page 4, lines 9-10, the disclosure teaches that the frame error information and the packet data are forwarded to the application layer. Applicant further asserts that channel frame error information refers to information regarding the channel errors that occur in data frames or in other words, payload error information is equivalent to channel frame error information. Examiner respectfully agrees. However, first of all, the disclosure does not explicitly specify that the channel errors are payload errors. As is known in the art, a data frame includes the header portion and data portion, therefore, frame error information does not specifically indicate the payload portion.

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Furthermore, a person of ordinary skill in the art would recognize that channel frame error information can be any parameters effecting the quality or accuracy of the received data frames which may including link quality. Therefore, as interpreted and considered by the examiner, channel frame error information is not equivalent to payload error information. Applicant further argues on page 13 that Larzon does not disclose or suggest forwarding payload error information with multimediate data to a higher layer. Examiner respectfully disagrees. Larzon discloses on page 191, 2nd col., that errors in the insensitive parts of a packet are forwarded to the receiving application (forwarding to a higher layer) with a modified checksum (payload error information) so that they would not be detected as damaged packets by the UDP layer at the receiving host (receiving payload error information with multimedia data from RLP layer).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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5/31/15